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SENATE CONCURRENT RESOLUTION No. 510

Originated in Senate Liz Welch Secretary

SENATE CONCURRENT RESOLUTION NO. 510

A CONCURRENT RESOLUTION COMMENDING THE CAREER OF COMPUTER INNOVATOR DR. JAMES LOTON FLANAGAN OF GREENWOOD, MISSISSIPPI, AND EXPRESSING THE SYMPATHY OF THE LEGISLATURE ON HIS PASSING.

WHEREAS, Dr. James L. Flanagan, whom we can thank for articulate digital assistants like Siri and intelligible subway loudspeakers and blame for the voices that inform frustrated telephone callers to listen carefully because their bank's, airline's or insurance company's automated customer care options have changed, passed away on August 25, 2015, at his home in Warren Township, New Jersey. He was 89 and would have turned 90 the next day. He was from Greenwood, Mississippi, where he was born on his family's cotton farm; and

WHEREAS, Dr. Flanagan, in great measure, is the genius responsible for making computers "talk." And that's a very simplistic description of the work of an absolutely brilliant Mississippi mind. As a leading researcher at AT&T Bell Laboratories, Dr. Flanagan was a pioneer in the field of acoustics, envisioning and providing the technical foundation for

speech recognition, teleconferencing, MP3 music files and the more efficient digital transmission of human conversation, most famously in a 1976 article, "Computers That Talk and Listen: Man-Machine Communication by Voice," that appeared in *Proceedings of the I.E.E.E.*, a journal published by the Institute of Electrical and Electronics Engineers; and

WHEREAS, James Loton Flanagan was born on his family's cotton farm in Greenwood, Mississippi, at the edge of the Mississippi Delta, on August 26, 1925, to Hanks Flanagan, a farmer, and the former Wilhelmina Barnes. Flanagan graduated from high school in 1943, then attended Mississippi State College for his freshman year before entering the U.S. Army to serve in World War II. While in service, he worked at learning signal scrambling and radar. He returned to Mississippi State University after the war to earn his Bachelor's degree in Electrical Engineering in 1948. Flanagan would later earn his Master's and Doctorate at Massachusetts Institute of Technology. Flanagan received the Doctor of Science degree in Electrical Engineering from the Massachusetts Institute of Technology, and then joined the research division of AT&T Bell Laboratories. He served 33 years at Bell Labs, retiring in 1990 as Director, Information Principles Research. His near 200 archival publications, two books, and 50 U.S. patents reflect his technical activities in this interval; and

WHEREAS, his work on automatic speech recognition, machine synthesis of speech, and efficient signal coding influenced today's human-machine capabilities and mobile technologies. Under his aegis, electro-acoustic devices evolved, notably electret transducers and auto-directive arrays for teleconferencing. He was elected to the National Academy of Engineering and to the National Academy of Sciences. Among his awards are the National Medal of Science, presented at the White House; the L.M. Ericsson International Prize in Telecommunications, presented in Stockholm by the King of Sweden; and the Institute of Electrical and Electronics Engineers Medal of Honor in 2005. He won the Marconi Prize in 1992. Flanagan received honorary doctorates from the University of Paris-Sud, from the Polytechnic University of Madrid, and from his alma mater, Mississippi State University; and

WHEREAS, Dr. Flanagan was granted or shared in about 50 patents, including an artificial human larynx and a typewriter activated by the same audio tones as a push-button phone that allowed deaf people to communicate remotely. His innovations included preserving the sound of a human voice while crunching it digitally, as well as teaching computers to articulate, converting sound waves into digital pulses. He also helped devise a "force-feedback" tactile glove, similar to today's video game accessories, that enabled medical students to simulate hands-on examinations when a live patient or cadaver was not available (or to mimic a fame of handball); and

WHEREAS, Dr. Flanagan also played a minor role in the drama surrounding the downfall of President Richard M. Nixon. In 1974, Dr. Flanagan was one of six acoustical experts appointed by Chief Judge John J. Sirica of the United States District Court in Washington who concluded that 18-1/2 minutes of a conversation between Nixon and his Chief of Staff H.R. Haldeman on June 20, 1972, had been deleted as a result of at least five separate erasures and re-recordings requiring "hand operation of keyboard controls." The conversation took place three days after the break-in at Democratic National Committee Headquarters in the Watergate Hotel and Office Complex in Washington. Nixon's personal secretary, Rose Mary Woods, accepted blame for erasing the first five minutes of the tape, saying she had been interrupted by a telephone call while transcribing it. But her explanation was generally dismissed as technically implausible. Nixon later resigned under threat of impeachment; and

WHEREAS, Dr. Flanagan's renown never distanced him from his Mississippi roots or from his alma mater; and it is with great pride that we remember his great and good spirit and remarkable intellect which enriched the lives of all his students and colleagues and brought honor to the State of Mississippi:

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF THE STATE OF MISSISSIPPI, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN, That we do hereby commend the career of Computer Innovator Dr. James

Loton Flanagan of Greenwood, Mississippi, and express the sympathy of the Legislature on his passing.

BE IT FURTHER RESOLVED, That this resolution be transmitted to the surviving family of Dr. James Flanagan, forwarded to the President of Mississippi State University, and made available to the Capitol Press Corps.

ADOPTED BY THE SENATE
January 21, 2016

PRESIDENT OF THE SENATE

ADOPTED BY THE HOUSE OF REPRESENTATIVES
January 26, 2016

SPEAKER OF THE HOUSE OF REPRESENTATIVES